

Appln. No. 09/868,497  
Amendment dated December 28, 2004  
Reply to Office Action of October 8, 2004

Amendments to the Specification:

Please amend the Abstract of the Disclosure on page 55 as follows:

A B S T R A C T

~~In the present invention, with~~ With respect to a digital modulation signal outputted from an output terminal, in order to enable desired carrier leak characteristics to be compatible with desired mutual modulation distortion characteristics according to a measurement object, a first level varying member is provided between an amplifier and an output terminal. In addition, a second level varying member is provided between a base band signal generator and an orthogonal modulator. The first and second level varying members are respectively set to be predetermined attenuation quantity values based on an output level value of a digital modulation signal specified by an output level specifying member and the judgment result caused by a judgment portion.

Please amend the paragraphs beginning at page 1, line 1 as follows:

~~D E S C R I P T I O N~~

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TITLE OF THE INVENTION

DIGITAL MODULATION SIGNAL GENERATING APPARATUS

~~Technical Field~~

Background of the Invention

Please amend the paragraphs beginning at page 1, line 16, as follows:

~~Background Art~~

Description of Related Art

There is well known as variety of digital signal modulation systems.

In general, as a digital signal modulation system used in a mobile communication system or the like, there is known an Orthogonal Frequency Division Multiplex modulation system (OFDM).

Brief Summary of the Invention

This OFDM modulation system, as shown in FIG. 10, is directed to a system of transmitting modulation waves "m" each having a very low transmission rate with equal intervals in some tens to some thousands of bundles.

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Please amend the paragraph beginning at page 3, line 6 as follows:

For example, in the case of measuring the sensitivity characteristics of the communication device, the attenuation quantity of the variable attenuator 15 is set to be large, and a level of the digital modulation signal  $S_c$  outputted from the output terminal 10a is set to a very low level (for example, -100 ~~dBm~~ dBm), and is inputted to the measurement object 1, whereby an error rate of the demodulation signal of the measurement object 1 is measured.

Please amend the paragraph beginning at page 6, line 23 as follows:

an orthogonal modulator (24) for generating a digital modulation signal of a predetermined channel that corresponds to a frequency of ~~the~~ a carrier signal upon receipt of a base band outputted from the base band signal generator and a carrier signal outputted from the carrier signal generator;

Please amend the paragraph beginning at page 7, line 24 as follows:

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level diagram switching means (32) for setting the first level varying means and the second level varying means so that a digital modulation signal outputted from the output terminal is set to a predetermined attenuation quantity value which makes desired carrier leak characteristics compatible with desired mutual modulation distortion characteristics, respectively, based on an output level value of a digital modulation signal specified by the output level specifying means and ~~the~~ a judgment result caused by the judgment means.

Please amend the paragraph beginning at page 8, line 13 as follows:

an orthogonal modulator (24) for generating a digital modulation signal of a predetermined channel that corresponds to a frequency of ~~the~~ a carrier signal upon the receipt of a base band signal outputted from the base band signal generator and a carrier signal outputted from the carrier signal generator;

Please amend the paragraph beginning at page 9, line 19 as follows:

level diagram switching means (32) for setting the first level varying means, the second level varying means, and the

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third level varying means, respectively, so that a digital modulation signal outputted from the output terminal is set to a predetermined attenuation quantity which makes desired carrier leak characteristics compatible with desired mutual modulation distortion characteristics based on an output level value of a digital modulation signal specified by the output level specifying means and the judgment result caused by ~~the~~ a judgment means.

Please amend the paragraph beginning on page 12, line 5 as follows:

~~Best Mode for Carrying Out of the Invention~~

Detailed Description of the Invention

Please amend the paragraph beginning on page 15, line 14 as follows:

That is, in this orthogonal modulator 24, the base band signal Ib and carrier signal C are inputted to the mixer 24a, and the base band signal Qb and a carrier signal ~~C~~ C' phase-shifted by 90 degrees by means of the phase shifter 24c are inputted to the mixer 24b.

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Please amend the paragraph beginning at page 22, line 17 as follows:

In this manner, a carrier leak ratio  $\alpha$  relevant to a total level at the output terminal 20a is 60 dB (= - 100 - (-160)), and a carrier leak ratio  $\alpha'$  (See Fig. 4) relevant to a level of a modulation wave superimposed on the residual carrier Cc is 30 dB as shown in FIG. 4.

Please amend the paragraph beginning on page 31, line 10 as follows:

Further, the mutual modulation distortion generated by the ~~attenuator~~ amplifier 27 is very low when its input signal level is lower than -10 dBm, and is gradually worsened in excess of -10 dBm.

Please amend the paragraph beginning on page 33, line 8 as follows:

Therefore, a carrier leak ratio  $\alpha$  relevant to a total level at the output terminal 20a is set to 70 dB, and a carrier leak ratio  $\alpha'$  (see Fig. 4) relevant to a level of the modulation waves superimposed on the residual carrier is set to 40 dB a shown in FIG. 10.

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Please amend the paragraph beginning on page 35, line 24 as follows:

Hence, the input signal level of the ~~attenuator~~ amplifier 27 is reduced to -10 dBm by means of the variable ~~attenuator 27~~ amplifier 26. Thus, the generation of a mutual modulation distortion caused by this amplifier 27 itself can be almost ignored.